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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/886,672	06/20/2001	Ludmila Cherkasova	10006757	8642

7590 09/02/2005

HEWLETT-PACKARD COMPANY
Intellectual Property Administration
P.O. Box 272400
Fort Collins, CO 80527-2400

EXAMINER

JOO, JOSHUA

ART UNIT	PAPER NUMBER
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2154

DATE MAILED: 09/02/2005

Please find below and/or attached an Office communication concerning this application or proceeding.

Notice of Allowability

Application No.

09/886,672

Examiner

Joshua Joo

Applicant(s)

CHERKASOVA ET AL.

Art Unit

2154

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address--

All claims being allowable, PROSECUTION ON THE MERITS IS (OR REMAINS) CLOSED in this application. If not included herewith (or previously mailed), a Notice of Allowance (PTOL-85) or other appropriate communication will be mailed in due course. **THIS NOTICE OF ALLOWABILITY IS NOT A GRANT OF PATENT RIGHTS.** This application is subject to withdrawal from issue at the initiative of the Office or upon petition by the applicant. See 37 CFR 1.313 and MPEP 1308.

1. ☒ This communication is responsive to 8/4/2005.
2. ☒ The allowed claim(s) is/are 1,2,4-7 and 14-25.
3. ☒ The drawings filed on 23 August 2005 are accepted by the Examiner.
4. ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
 - a) ☐ All b) ☐ Some* c) ☐ None of the:
 1. ☐ Certified copies of the priority documents have been received.
 2. ☐ Certified copies of the priority documents have been received in Application No. _____.
 3. ☐ Copies of the certified copies of the priority documents have been received in this national stage application from the International Bureau (PCT Rule 17.2(a)).

* Certified copies not received: _____.

Applicant has THREE MONTHS FROM THE "MAILING DATE" of this communication to file a reply complying with the requirements noted below. Failure to timely comply will result in ABANDONMENT of this application.
THIS THREE-MONTH PERIOD IS NOT EXTENDABLE.

5. ☐ A SUBSTITUTE OATH OR DECLARATION must be submitted. Note the attached EXAMINER'S AMENDMENT or NOTICE OF INFORMAL PATENT APPLICATION (PTO-152) which gives reason(s) why the oath or declaration is deficient.
 6. ☐ CORRECTED DRAWINGS (as "replacement sheets") must be submitted.
 - (a) ☐ including changes required by the Notice of Draftsperson's Patent Drawing Review (PTO-948) attached
 - 1) ☐ hereto or 2) ☐ to Paper No./Mail Date _____.
 - (b) ☐ including changes required by the attached Examiner's Amendment / Comment or in the Office action of Paper No./Mail Date _____.
- Identifying indicia such as the application number (see 37 CFR 1.84(c)) should be written on the drawings in the front (not the back) of each sheet. Replacement sheet(s) should be labeled as such in the header according to 37 CFR 1.121(d).
7. ☐ DEPOSIT OF and/or INFORMATION about the deposit of BIOLOGICAL MATERIAL must be submitted. Note the attached Examiner's comment regarding REQUIREMENT FOR THE DEPOSIT OF BIOLOGICAL MATERIAL.

Attachment(s)

1. ☒ Notice of References Cited (PTO-892)
2. ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
3. ☐ Information Disclosure Statements (PTO-1449 or PTO/SB/08),
Paper No./Mail Date _____
4. ☐ Examiner's Comment Regarding Requirement for Deposit
of Biological Material
5. ☐ Notice of Informal Patent Application (PTO-152)
6. ☒ Interview Summary (PTO-413),
Paper No./Mail Date _____
7. ☒ Examiner's Amendment/Comment
8. ☐ Examiner's Statement of Reasons for Allowance
9. ☐ Other _____


JOHN FOLLANSBEE
SUPERVISORY PATENT EXAMINER
TECHNOLOGY CENTER 2100

Examiner's Amendment

1. An examiner's amendment to the record appears below. Should the changes and/or additions be unacceptable to applicant, an amendment may be filed as provided by 37 CFR 1.312. To ensure consideration of such an amendment, it MUST be submitted no later than the payment of the issue fee.

Authorization for this examiner's amendment was given in a telephone interview with Jody C. Bishop on 8/23/05.

2. The application has been amended as follows:

2. (Currently Amended) ~~[[A]]~~ The server cluster as recited in Claim 1 wherein said server cluster is a web server cluster.

4. (Currently Amended) ~~[[A]]~~ The server cluster as recited in Claim 1 wherein said cluster memory is a combined random access memory of each of said nodes of said server cluster.

5. (Currently Amended) ~~[[A]]~~ The server cluster as recited in Claim 1 wherein each of said plurality of nodes further comprises a set of partitioned files.

6. (Currently Amended) ~~[[A]]~~ The server cluster as recited in Claim 1 wherein said set of core files comprises a set of most frequently accessed files of said set of bases files.

14. (Currently Amended) A method for managing request distribution to a set of files stored on a server, said method comprising the steps of:

Art Unit: 2154

a) receiving a request for a file at a first node of a plurality of nodes, each of said nodes comprising a distributor component for distributing a request to a specific node of said plurality of nodes, a dispatcher component comprising routing information for said plurality of nodes and replicated across said plurality of nodes, and a server component for processing said request;

b) provided said request is for a core file, processing said request at said first node;

c) provided said request is for a partitioned file, determining whether said request is assigned to be processed by said first node;

c1) provided said request is for a partitioned file assigned to be processed by said first node, processing said request at said first node;

c2) provided said request is for a partitioned file assigned to be processed by another node of said plurality of nodes, forwarding said request to a specific node of said plurality of nodes as indicated by said dispatcher component of said first node and processing said request at said specific node; and

d) provided said request is not for a said core file or a said partitioned file, processing said request at said first node;

wherein each of said plurality of nodes further comprises a set of core files comprising said core file and a set of partitioned files comprising said partitioned file, and wherein said set of core files is identified by the steps of:

a) logically partitioning said base [[t]]files into said set of core files having a core size, said set of partitioned files having a partitioned size, and a set of on disk files having an on disk size, wherein said base files comprising each of said set of core files, said set of partitioned files, and said set of on disk files are ordered in decreasing frequency of access;

Art Unit: 2154

b) identifying said set of core files and said set of partitioned files wherein the total of said partitioned size added to the product of ~~said~~ number of said plurality of nodes multiplied by said core size is less than ~~said cluster~~ memory of said plurality of nodes; and

c) minimizing a total overhead due to the base files wherein said total overhead equals an overhead of said core set of files plus an overhead of said partitioned set of files plus said overhead of said on disk set of files.

16. (Currently Amended) [[A]] The method as recited in Claim 15 wherein said server cluster is a web server cluster.

17. (Currently Amended) [[A]] The method as recited in Claim 15 wherein said cluster memory is a combined random access memory of each of said nodes of said web server cluster.

18. (Currently Amended) [[A]] The method as recited in Claim 15 wherein said first subset of files is a set of core files and wherein said first size is a core size.

19. (Currently Amended) [[A]] The method as recited in Claim 15 wherein said second subset of files is a set of partitioned files and wherein said second size is a partitioned size.

21. (Currently Amended) [[A]] The server cluster as recited in Claim 1 wherein each file of said set of partitioned files is assigned to a particular one of said plurality of nodes for processing thereof.

22. (Currently Amended) [[A]] The server cluster as recited in Claim 21 wherein said routing information indicates which of said plurality of nodes is assigned for processing each of said set of partitioned files.

23. (Currently Amended) [[A]] The server cluster as recited in Claim 1 wherein said dispatcher component of a node that receives said request ("the receiving node") comprises logic for determining whether said request is a request to access a core file, and if determined that said request is a request to access said core file then said dispatcher component of the receiving node assigns the server component of the receiving node to process said request.

24. (Currently Amended) [[A]] The server cluster as recited in Claim 23 wherein said dispatcher component of the receiving node further comprises logic for determining whether said request is a request to access a partitioned file, and if determined that said request is a request to access said partitioned file then said dispatcher component of the receiving node determines one of said plurality of node assigned to process the requested partitioned file.

25. (Currently Amended) [[A]] The server cluster as recited in Claim 24 wherein if said dispatcher component determines that the receiving node is assigned to process the requested partitioned file, the dispatcher component assigns the server component of the receiving node to process said request.

Comment

3. Dependent claims 16-19 are amended from "A method" to "The method", and dependent claims 2, 4-6, and 21-25 are amended from "A server cluster" to "The server cluster" to not

Art Unit: 2154

further narrow the claims but to clarify the language of the claims. Since claims 2, 4-6, and 21-25 are dependent on claim 1, where "A server cluster" is introduced, changing the dependent claims to "The server cluster" clarifies that the server cluster in the dependent claims are referring to the same server cluster in claim 1. Since claims 21-25 are dependent on claim 20, where "A method" is claimed, amending the dependent claims to state "The method" clarifies that the method in the dependent claims are referring to the same method as in claim 1.

Examiner's Reason for Allowance

4. The following is an examiner's statement of reasons for allowance:

None of the prior arts of record teaches or fairly suggests all of the limitation recited in the claims, specifically a server cluster comprising a set of base files, wherein said base files are a set of frequently accessed files fitting into a cluster memory of said server cluster, and wherein the base files are logically partitioned into a set of core files having a core size, a set of partitioned files having a partitioned size, and a set of on disk files, and wherein a total of the partitioned size added to the product of the number of said plurality of nodes multiplied by the core size is no greater than the cluster memory, is not found in the prior art of record.

5. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Joshua Joo who telephone number is 571 272-3966

August 23, 2005

JJ


JOHN FOLLANSBEE
SUPERVISORY PATENT EXAMINER
TECHNOLOGY CENTER 2100

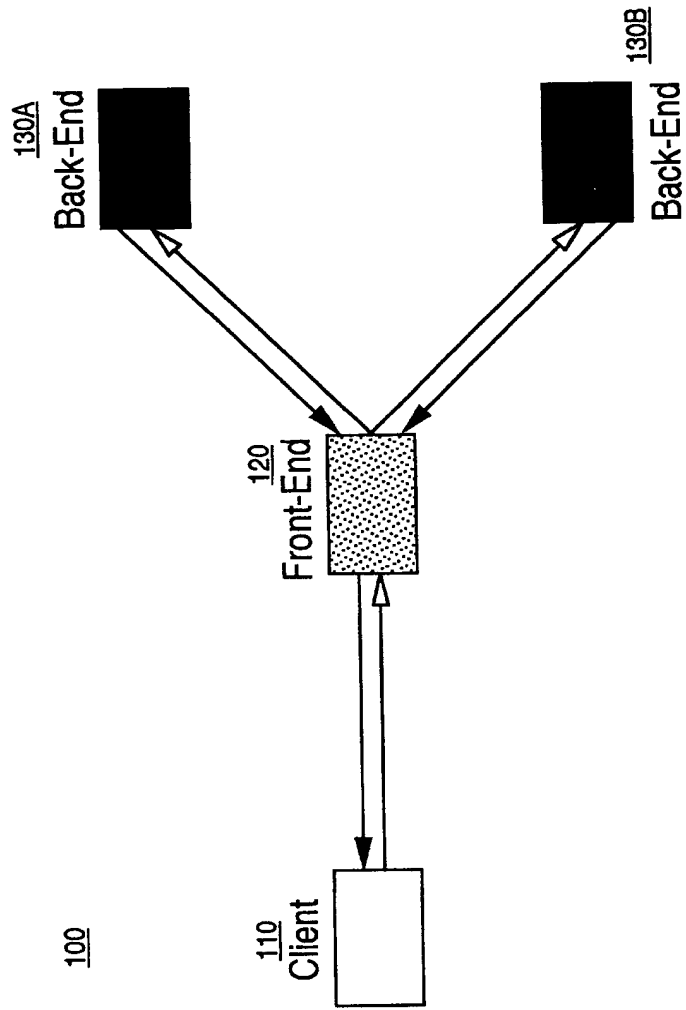


Figure 1A

Prior Art

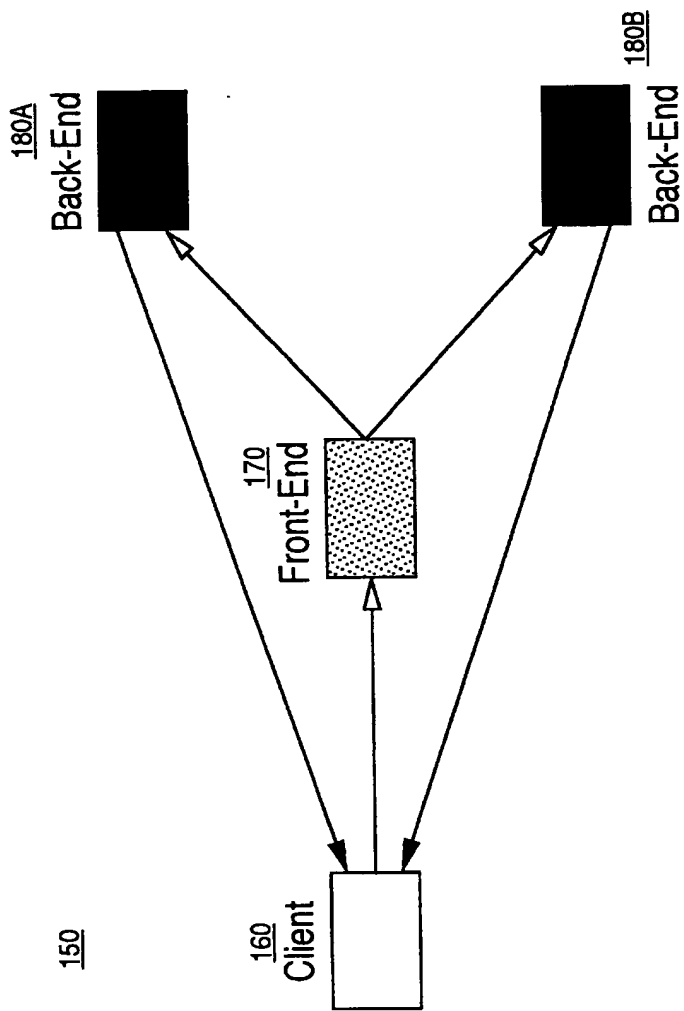


Figure 1B

Prior Art

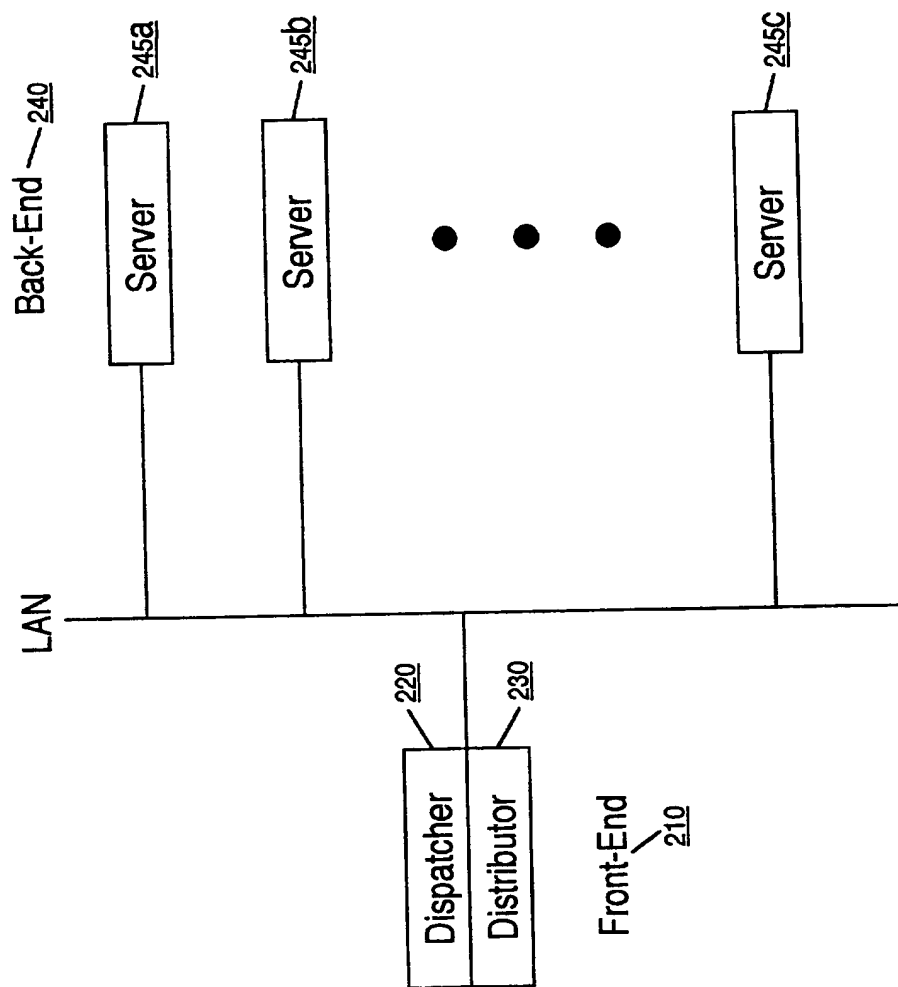


Fig. 2A
Prior Art

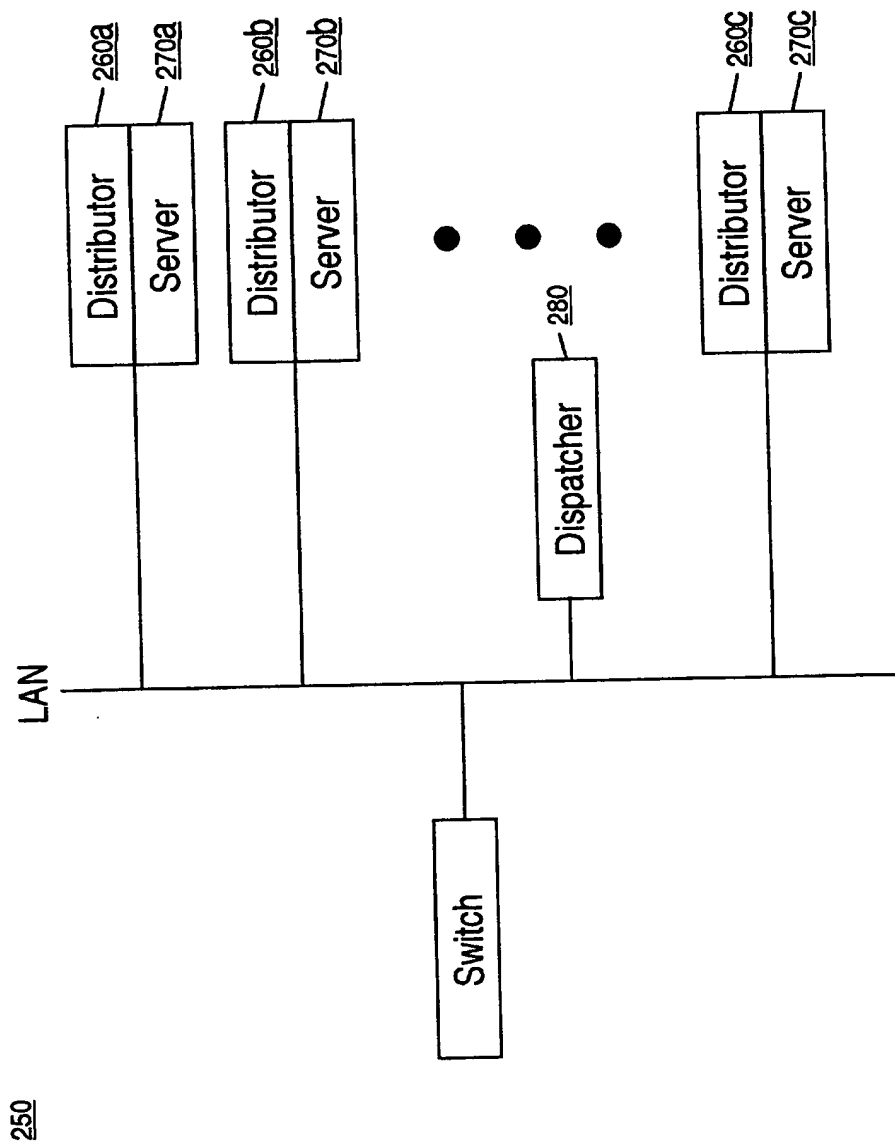


Fig. 2B

Prior Art